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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
WEBB, GREGORY E	

ART UNIT	PAPER NUMBER
1751	

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/688,501	WILSON, PAUL A.	
	Examiner	Art Unit	
	Gregory E. Webb	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0204, 0705*
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Rouillard (US6106633). Concerning the claimed builder, Rouillard teaches the following:

TABLE 1

CONCENTRATION OF DETERIORATION ACCELERATORS USING SINGLE INGREDIENTS	
MATERIAL	CONC. (PPM)
EDTA	100
SODIUM TRIPOLYPHOSPHATE	100
TRISODIUM PHOSPHATE	100
PHOSPHORIC ACID	75
ALCOHOL ALKOXYLATE PHOSPHATE ESTER	400

_____(see table 1)

Concerning the claimed surfactant and the claimed hydrotrope, Rouillard teaches the following:

> The soaking solution can also include various anionic and amphoteric surfactants to promote solution stability. Typical anionic and amphoteric surfactants include lauryl sulfate, sodium xylene sulfonate, toluene sulfonic acid and salts thereof, sulfosuccinate salts, fatty acids and their salts, and the imidazolines. These are used as hydrotropes and could be present in a liquid solution at a concentration of 0-20% by weight.(see col. 4, lines 8-15)

Concerning the claimed water conditioner, Rouillard teaches the following:

> In addition, the soaking solution will preferably include a chelating agent. It is very important that the chelating agent not be ethylene diamine tetraacetic acid or nitrilotriacetic acid. Both of these materials which are commonly used in bottle washing solutions promote destruction of glass and ACLs. Preferably, the chelating agent will be gluconic acid or a water-soluble salt thereof, an alkali metal glucoheptonate, or an alkali metal boroheptonate. About 50-2000 ppm of the chelating agent should be present in the soaking solution, with at least about 200 ppm being preferred.(see col. 4, lines 16-27)

Concerning the claimed alkali, Rouillard teaches the following:

> The bottle washing apparatus will generally have a volume of water to which the bottle washing composition, i.e., sodium hydroxide and other chemicals, are added to form the bottle washing solution. The formed

bottle washing solution will generally include 1-8.0% by weight of caustic, preferably 1-4%. Although potassium hydroxide can be used, sodium hydroxide is preferred because of its increased alkalinity and generally lower cost.(see col. 3, lines 20-28)

Concerning the claimed processing aid, Rouillard teaches the following:

The crystal growth inhibitor is a low molecular weight polycarboxylic acid or salt thereof. The polycarboxylic acid can include polyacrylic acid, polymethacrylic acid and polymaleic acid and copolymers or terpolymers thereof. Generally, the average molecular weight of these polymers will be from about 1000 to about 100,000. The determining factor with respect to molecular weight is primarily the ability of the polymer to dissolve in the soaking solution.(see col. 3, lines 40-45)

Concerning the builder salt, Rouillard teaches the following:

3. A method according to claim 2 wherein the heavy metals are selected from the group of zinc, aluminum, beryllium, lead, cadmium, and mixtures thereof.(see claim 3)

Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunn (US5853490).

Concerning the claimed builder and the builder salt, Dunn teaches the following:

The carbonate and bicarbonate salts useful in this invention are any alkali metal or ammonium carbonate and/or bicarbonate salt. Preferred salts are those of potassium and sodium especially if such salts are used in a

cleaning solution. The preferred carbonate salts include potassium carbonate, potassium carbonate dihydrate, potassium carbonate trihydrate, sodium carbonate, sodium carbonate decahydrate, sodium carbonate heptahydrate, sodium carbonate monohydrate, sodium sesquicarbonate and the double salts and mixtures thereof. The bicarbonate salts include potassium bicarbonate and sodium bicarbonate and mixtures thereof. Ammonium salts are particularly useful when treatment is effected subsequent to cleaning such as during a rinsing step since the treatment with ammonium salts such as ammonium bicarbonate does not leave any salt residues after a drying stage.(see col. 3, lines 40-55)

Concerning the claimed surfactant, Dunn teaches the following:

Polyoxyethylene condensates of sorbitan fatty acids, alkanolamides, such as the monoalkoanolamides, dialkanolamides, and amines; and alcohol alkoxylate phosphate esters, such as the "Klearfac" series from BASF are also useful surfactants in the compositions of this invention.(see col. 6, lines 12-16)

Concerning the claimed hydrotrope, Dunn teaches the following:

The hydrotropes useful in this invention include the sodium, potassium, ammonium and alkanol ammonium salts of xylene, toluene, ethylbenzoate, isopropylbenzene, naphthalene, alkyl naphthalene sulfonates, phosphate esters of alkoxylated alkyl phenols, phosphate esters of alkoxylated alcohols and sodium, potassium and ammonium salts of the alkyl sarcosinates. The hydrotropes are useful in maintaining the organic

materials including the surfactant readily dispersed in the aqueous cleaning solution and, in particular, in an aqueous concentrate which is an especially preferred form of packaging the compositions of the invention and allow the user of the compositions to accurately provide the desired amount of cleaning composition into the aqueous wash solution. A particularly preferred hydrotrope is one that does not foam. Among the most useful of such hydrotropes are those which comprise the alkali metal salts of intermediate chain length linear monocarboxylic fatty acids, i.e., C.sub.7 -C.sub.13. Particularly preferred are the alkali metal octanoates and nonanoates.(see col. 7, lines 32-50)

Concerning the claimed alkali, Dunn teaches the following:

A suitable corrosion inhibitor which can be added to the aqueous metal cleaning compositions of this invention include magnesium and/or zinc ions. Preferably, the metal ions are provided in water soluble form. Examples of useful water soluble forms of magnesium and zinc ions are the water soluble salts thereof including the chlorides, nitrates and sulfates of the respective metals. If the alkalinity providing agents are primarily the alkali metal carbonates, bicarbonates or mixtures of such agents, magnesium oxide can be used to provide the Mg ion. The magnesium oxide is water soluble in such solutions and is a preferred source of Mg ions. The magnesium oxide appears to reduce coloration of the metal substrates even when compared with the chloride salt.(see col. 6,lines 30-45)

Concerning the claimed processing aid and water conditioner, Dunn teaches the following:

TABLE 2

	Example 2	Example 3
Sodium carbonate	2.0	0.0
Sodium bicarbonate		2.0 0.0
Potassium carbonate		8.0 15.0
Polytergent SL-42	1.0	0.0
Polytergent CS-1	0.2	0.0
Polytergent S-405LF		0.5 4.0
Sodium nonanoate	2.5	4.0
Potassium silicate		0.0 4.0
Carbopol 625	0.0	0.9
Water	83.8	72.1

Polytergent SL42 is an ethoxylated propoxylated alcohol manufactured by Olin Corp.
Polytergent CS1 is a dicarboxylated ethoxylated alcohol manufactured by Olin Corp.
Polytergent S405LF is a propoxylated ethoxylated alcohol manufactured by Olin Corp.
Carbopol 625 is a cross linked polyacrylic acid polymer.(see table 2)

Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Bolkan (US5712236).

Concerning the claimed builder, Bolkan teaches the following:

> Alkali providing agents of the aqueous metal cleaning compositions of the present invention can be provided by one or more alkali metal salts. Suitable alkali metal salts or mixtures thereof useful in the present invention are those capable of providing the desired pH. Most suitable are the salts of potassium and sodium. Especially preferred are the potassium and sodium carbonates and bicarbonates which are economical, safe and

environmentally friendly. The carbonate salts include potassium carbonate, potassium carbonate dihydrate, potassium carbonate trihydrate, sodium carbonate, sodium carbonate decahydrate, sodium carbonate heptahydrate, sodium carbonate monohydrate, sodium sesquicarbonate and the double salts and mixtures thereof. The bicarbonate salts include potassium bicarbonate and sodium bicarbonate and mixtures thereof. Mixtures of the carbonate and bicarbonate salts are also especially useful.(see col. 4, lines 10-25)

Concerning the claimed surfactant, Bolkan teaches the following:

7. The concentrate of claim 6, wherein the surfactant is a nonionic surfactant.(see claim 7)

Concerning the claimed hydrotrope, Bolkan teaches the following:

The hydrotropes useful in this invention include the sodium, potassium, ammonium and alkanol ammonium salts of xylene, toluene, ethylbenzoate, isopropylbenzene, naphthalene, alkyl naphthalene sulfonates, phosphate esters of alkoxylated alkyl phenols, phosphate esters of alkoxylated alcohols and sodium, potassium and ammonium salts of the alkyl sarcosinates. The hydrotropes are useful in maintaining the organic materials including the surfactant readily dispersed in the aqueous cleaning solution and, in particular, in an aqueous concentrate which is an especially preferred form of packaging the compositions of the invention and allow the user of the compositions to accurately provide the desired amount of cleaning composition into the aqueous wash solution. A

particularly preferred hydrotrope is one that does not foam. Among the most useful of such hydrotropes are those which comprise the alkali metal salts of intermediate chain length linear alkyl monocarboxylic fatty acids, i.e., C.sub.7 -C.sub.13. Particularly preferred are the alkali metal octanoates and nonanoates.(see col. 9, lines 20-37)

Concerning the claimed alkali, Bolkan teaches the following:

4. The concentrate of claim 1, wherein the water soluble salt of magnesium comprises magnesium oxide, magnesium chloride or magnesium sulfate.(see claim 4)

Concerning the claimed processing aid and water conditioner, Bolkan teaches the following:

In order to assist in maintaining the dispersibility of zinc phosphate and magnesium corrosion inhibitors in aqueous solution, in particular, under the mildly alkaline pH conditions most useful in this invention and in the presence of agents which would otherwise cause precipitation of zinc phosphate or magnesium ions, e.g., carbonates, phosphates, etc., it has been found advantageous to include a carboxylated polymer to the solution. The useful carboxylated polymers may be generically categorized as water-soluble carboxylic acid polymers such as polyacrylic and polymethacrylic acids or a vinyl addition polymers. Of the vinyl addition polymers contemplated, maleic anhydride copolymers as with vinyl acetate, styrene, ethylene, isobutylene, acrylic acid and vinyl ethers are preferred.(see col 5, lines 20-40)

Concerning the builder salt, Bolkan teaches the following:

When a phosphate such as orthophosphate is provided as an actual additive, zinc can be added to the compositions as such water soluble compounds as zinc oxide, zinc acetate, zinc chloride, zinc formate, zinc nitrate, zinc sulphate, zinc borate, zinc chromate, zinc dichromate, and the like.(see col. 5, lines 15-25)

Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Requejo (US4983317).

Concerning the claimed builder, Requejo teaches the following:

Although it is preferred not to incorporate a phosphate builder, in view of the detrimental effects phosphates have on the environment, the inclusion of a phosphate builder is not incompatible with the invention disclosed herein. Particularly suitable alkyl metal polyphosphates includable herein are sodium tripolyphosphate, tetrasodium pyrophosphate and sodium hexametaphosphate, preferably in an amount of less then about 2.0% by weight of the composition.(see cols 5-6)

Concerning the claimed surfactant, Requejo teaches the following:

In accordance with the present invention, it has been found that an effective general purpose cleaner concentrate can be obtained by the combination of a polyacrylic acid or alkali metal salt of a polyacrylic acid as a builder and a cyclohexene dicarboxylic acid or salt thereof as a hydrotrope, incorporated into a composition further comprising an organic solvent; a nonionic or anionic surfactant, and another builder. It has further been found that the polyacrylic builder-hydrotrope system

incorporated therein is effective on many types of hard surfaces without causing streaking or smearing.(see col. 3, lines 9-20)

Concerning the claimed hydrotrope, Requejo teaches the following:

(d) from about 1 to about 15% of a hydrotrope which is an alkali metal salt of a cyclohexene dicarboxylic acid, the weight ratio of said hydrotrope to said second builder being in the range of from 1:1 to about 20:1, and(see col. 2, lines 39-45)

Concerning the claimed water conditioner and the builder salt, Requejo teaches the following:

17. The concentrate cleaner of claim 14 wherein the chelating agent is selected from the group consisting of potassium citrate, and sodium salt of nitrilotriacetic acid, and is present in an amount of less than about 5%.(see claim 17)

Concerning the claimed alkali, Requejo teaches the following:

18. The concentrate cleaner of claim 14 wherein the fugitive alkaline agent is selected from the group consisting of ammonia and morpholine, and is present in an amount of less than about 3%.(see claim 18)

Concerning the claimed processing aid, Requejo teaches the following:

The second builder is a polyacrylic alkali or a alkyl metal salt of a polyacrylic acid, said polyacrylic material having a molecular weight of from about 500 to about 8,000. This builder has the general structural formula

##STR1##

where n is equal to about 10 to about 100, R.sub.1 is hydrogen or a methyl

or ethyl group, and M is hydrogen, ammonium, or an alkali metal selected from the group consisting of sodium, potassium, or lithium. The polyacrylic builder is present in the builder system in an amount of from about 5 to about 65% by weight on an active basis, preferably from about 10 to 30%. Typically, this second builder is provided in solution form, the solvent being water, and is between about 40 to about 60% active. The polyacrylic builder of the present invention is commercially available as Acrysol LMW from Rohm and Haas Co., Inc.; Colloid 117 from Colloids, Inc.; and Calnox 236 from Aquaness Chemical Company. Preferably, the molecular weight of the polyacrylic builder is from about 1,000 to about 5,000. Because the polyacrylic builder component is not compatible with the organic solvent, these constituents are not admixed together. Preferably, the polyacrylic acid is further diluted with water to form a premix, to which is then added an aqueous solution of the first builder, and then the other constituents to form the composition.(see col. 4, lines 35-68)

Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by de Buzzaccarini (US4767563).

Concerning the claimed builder and the builder salt, de Buzzaccarini teaches the following:

The compositions herein are preferably formulated in the alkaline pH range,

generally in the range of pH 8-11, preferably about 10-10.8. Caustics such as sodium hydroxide and sodium carbonate can be used to adjust and buffer the pH, as desired.(see col. 5, lines 15-20)

Concerning the claimed surfactant, de Buzzaccarini teaches the following:

Surfactants--Water-soluble detersive surfactants useful herein include well-known synthetic anionic, nonionic, amphoteric and zwitterionic surfactants. Typical of these are the alkyl benzene sulfates and sulfonates, paraffin sulfonates, olefin sulfonates, alkoxylated (especially ethoxylated) alcohols and alkyl phenols, amine oxides, sulfonates of fatty acids and of fatty acid esters, and the like, which are well-known from the detergency art. In general, such detersive surfactants contain an alkyl group in the C.sub.10 -C.sub.18 range; the anionic detersive surfactants are most commonly used in the form of their sodium, potassium or triethanolammonium salts; the nonionics generally contain from about 3 to about 17 ethylene oxide groups. U.S. Pat. Nos. 4,111,855 and 3,995,669 contain detailed listings of such typical detersive surfactants. C.sub.12 -C.sub.16 alkyl benzene sulfonates, C.sub.12 -C.sub.18 paraffin-sulfonates and the ethoxylated alcohols are especially preferred in the compositions of the present type.(see cols. 3-4)

Concerning the claimed hydrotrope and the claimed alkali, de Buzzaccarini teaches the following:

Another additional ingredient for use herein is represented by conventional

detergent hydrotropes. Examples of suitable hydrotropes are urea, monoethanolamine, diethanolamine, triethanolamine and the sodium, potassium, ammonium and alkanol ammonium salts of xylene-, toluene-, ethylbenzene- and isopropyl-benzene sulfonates. These hydrotropes can be added to the compositions of the present invention in amounts up to about 10% by weight. It is a particular feature of the present invention, however, that stable formulations can be prepared without the need for hydrotropic materials of this kind, or with only very minor levels such as amount of from 0 to 4% (up to 4%) by weight.(see cols 4-5)

Concerning the claimed water conditioner and the claimed processing aid, de Buzzaccarini teaches the following:

9. The composition of claim 1 or 8 wherein said composition contains a thickener selected from the group consisting of polyacrylates, xanthan gums, carboxymethyl celluloses, swellable smectite clays, and mixtures thereof.(see claim 9)

Claims 1-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Disch (US4175062).

Concerning the claimed builder, Disch teaches the following:

8. The liquid cleanser composition of claim 1 having a further content of up to 30% by weight of other customary liquid cleanser ingredients selected from the group consisting of polymeric phosphates, organic sequestering agents, wash alkalis, sodium sulfate, soil suspension agents,

hydrotropic agents, organic solvents, dyes, odorants and antimicrobial agents.(see claim 8)

Concerning the claimed surfactant, Disch teaches the following:

The present invention, therefore, relates to a liquid cleanser for hard surfaces in the form of more or less dilute, preferably aqueous, solutions wth a content of nonionic adducts of ethylene oxide to aliphatic vicinal diols, or partially etherified diols with linear alkyl chain of 10 to 20 carbon atoms, anionic tensides as well as other conventional components of such cleansers, if desired, characterized by the fact that it has as a content of nonionic adducts and anionic tensides 2% to 30%, preferably 5% to 15%, by weight of a mixture consisting of:(see cols. 2-3)

Concerning the claimed hydrotrope, Disch teaches the following:

An addition of higher polyglycol ethers or polyglycerin or other water-soluble high-molecular-weight substances that are also known as soil suspension agents is recommended for the regulation of the viscosity, as desired. Also recommended for the regulation of the viscosity is an addition of sodium chloride and/or urea.(see col. 7, lines 30-40)

Concerning the claimed water conditioner, Disch teaches the following:

Polymeric phosphates with an alkaline reaction, especially the tripolyphosphates as well as the pyrophosphates are especially suitable as inorganic complexing or sequestering agents. They can be replaced completely or partially by organic complexing or sequestering agents.(see col. 5, lines 12-20)

Concerning the claimed alkali and the builder salt, Disch teaches the following:

> Inorganic or organic compounds with an alkaline reaction in their totality, especially inorganic or organic complexing or sequestering agents, which are present preferably in the form of their alkali metal or amine salts, especially the potassium salt, are used as builders for the liquid cleansers according to the invention. Also included among the builders are the alkali metal hydroxides of which potassium hydroxide is used preferably. In addition to the above builders for liquid cleansers, they can also contain wash alkalis, which act as builders and inert fillers, such as sodium sulfate or sodium or potassium chloride.(see col. 5, lines 1-10)

Concerning the claimed processing aid, Disch teaches the following:

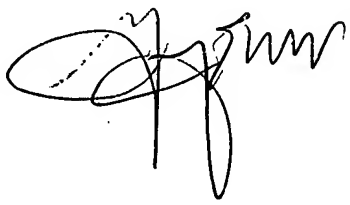
> In addition, inorganic or organic colloids or other water-soluble high-molecular-weight substances can be used as additives, particularly for their soil suspension effect, as well as their colloidal effect. These water-soluble organic colloids include polyvinyl alcohol, polyvinyl pyrrolidone, water-soluble derivatives of cellose or starch, such as carboxymethyl cellulose, ethers of cellulose and oxyalkyl sulfonic acids, as well as cellulose sulfates.(see col. 7, lines 1-10)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory E. Webb whose telephone number is 571-272-1325. The examiner can normally be reached on 9:00-17:30 (m-f).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglass McGinty can be reached on (571)272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory E. Webb
Primary Examiner
Art Unit 1751

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